

An Optimised Model for Sustainable Developments



UK | DUBAI | MALAYSIA



Dima Alkawadri

Ph.D. student, Sustainability
School of Energy, Geoscience, Infrastructure and Society
Heriot-Watt University-Dubai Campus
Dubai, UAE
dsa31@hw.ac.uk

Research Abstract

Despite the various sustainability initiatives, integrating sustainable building practices into new construction projects has not been successful due to the absence of a clear sustainability strategy of what is crucial to achieve out of these frameworks and the lack of data available to identify approximate certification costs. This situation creates a significant barrier to obtaining optimal sustainable results. It might lead to a level of accreditation but without achieving the sustainability targets of the projects and without fully optimising sustainability solutions with low costs. Using proven framework protocols like LEED and Estidama can be useful. Still, even these methodologies will not help towards effective implementation without benchmark datasets balanced with each sustainability target to optimise capturing sustainability benefits on economic, social, and environmental levels. There is a need to develop an optimised support model as a state to balance the desired sustainable option along with cost and users' levels of satisfaction. Through this study, an optimised sustainability model is developed to aid decision-makers through credits selections process to integrate Sustainability in its best value within end-users' comfort and wellbeing.

Supervisors

Dr Yasemin Nielson and Dr Bilge Erdogan